than those of other mosses, regardless of the facts that *B. Favanica* has entire leaves, and that there are plenty of instances among mosses and hepaticæ where the marginal cells and even those of other parts of the leaf are produced into cilia. Indeed, Professor Goebel seems here to have undertaken a gratuitous labor, for all are agreed that the plant body in mosses and foliose hepaticæ grows from the protonema. The peculiarity of *Buxbaumia* in the respect seems to be that it does not grow so large.

The strangest thing about *Buxbaumia* is, perhaps, its physiological arrangement. The sexual generation, instead of leading the life of a parasite upon its parent, as in other mosses, is richly provided with chlorophyll, and apparently needs the parent only as a means of attachment to the substratum. O. F. Cook.

Bulletin de l'Herbier Boissier. Sous la Direction de Eugène Autran, Conservateur de l' Herbier. (Tome i. No. 1, 8vo. pp. 32, avec deux planches, Geneve, 1893).

We chronicle with much pleasure and interest, the appearance of another new journal, published under the auspices of the great herbarium of M. Boissier at Chambesy, near Geneva. It is planned to issue the Bulletin as material becomes available, and to produce a volume of 400 pages each year. The first number contains two papers: (I) Les Genres *Achatocarpus*, Triana et *Bosia*, L., et leur Place dans le Systeme Naturel by Dr. Hans Schinz and M. Autran, illustrated by two plates. *Achatocarpus* is a South American genus placed by Triana in relationship with *Rivina* in the Phytolacaceæ, where MM. Schinz and Autran conclude it belongs. It is referred by Bentham and Hooker to the Amarantaceæ and by Baillon to the Chenopodiaceæ. Four new species are described, all Paraguayan.

The second paper is by Dr. Geo. E. Post, and is Part V. of his descriptions of and notes on Syrian plants. N. L. B.

Proceedings of the Club.

Tuesday, February 14th, 1893.

The President in the chair and thirty-five persons present.

Mrs. L. Brück, of Hoboken, N. J., and Mr. Geo. M. Beringer, of Camden, N. J., were elected active members.

The assent of the Club was given to a proposition of the Council of the Scientific Alliance of New York, that a joint meeting be held in memory of Prof. John S. Newberry.

The first paper of the evening was then read by Dr. H. H. Rusby, entitled "Account of some new Species of Polypetalæ from Bolivia." The paper was a report upon the study of 280 numbers collected by Mr. Miguel Bang, representing 271 species and varieties, of which 58 were unknown and 4 others were represented only by manuscript names or by names published without descriptions. The specimens of these new species were exhibited, a number of them being compared with other specimens exhibited of related species. Dr. Rusby announced that his method of publishing his enumeration of Mr. Bang's plants would be in sets of 1000 numbers, each set being published in two parts, each part to constitute a number of the Memoirs of the Club. The first part, running through the Compositæ of the first thousand numbers, would occupy a number of the next volume of the Memoirs.

The second paper was then presented by Mr. Henry Kraemer, being his report as chairman of the Field Committee for 1892. The report was remarkably full in the enumeration of every detail connected with the work of the committee, and was filed with the Secretary.

Dr. Britton spoke of two forms of *Vaccinium vacillans*, collected at Forked River, N. J., and exhibiting two markedly distinct forms of corolla. His attempts to associate these with the corresponding fruits had not up to the present proven satisfactory. He also referred to the *Rubus villosus*, var. (?) *humifusus*, which had now turned up in a number of localities.

An interesting discussion followed on the appearance and habit of the *Nelumbo lutea*. Mr. Rudkin, in reply to a question by the President, stated that the plant had not only held its own at Swartzwood Pond, N. J., but had increased greatly. It was found in full bloom about the 1st of August. The flowers are 9 or 10 inches in diameter, and the petals are few and loose as compared with those of *Castalia*; the largest leaves are 2 feet or more in diameter. Dr. Morong remarked upon the great length and increasing thickness downward of the portion of the plant which was imbedded in the mud; in this respect it is similar to the *Orontium aquaticum*. So large and thick are these portions that

the plant bears removal very well, being capable of transportation to long distances.

Dr. Britton exhibited a copy of Prof. Conway Macmillan's "Metaspermæ of the Valley of the Minnesota," which he regarded as the most extensive and complete local flora ever produced. It is published by the Geological Survey of the State of Minnesota.

WEDNESDAY EVENING, FEBRUARY 22d.

Vice President Morong in the Chair and seventeen persons present.

The following papers were read:

"A Memorial of Professor John Strong Newberry," by N. L. Britton. The paper was illustrated by specimens of plants named in honor of Prof. Newberry and by a portrait, and is published in this number of the BULLETIN. Remarks were made by Dr. Arthur Mead Edwards, Mr. Lighthipe and the Chairman.

"Notes on some plants of the Yadkin River Valley, N. C.," by John K. Small. The paper was copiously illustrated by specimens and was discussed by Dr. Britton and Dr. Morong.

Index to Recent Literature Relating to American Botany.

Additions to the State (Indiana) Flora from Putnam County. Lucien M. Underwood (Proc. Ind. Acad. Sci. 1891, 89–91).

Eustichia Norvegica is reported from sandstone rocks at Fern, the fourth station in America.

Bread-Fruit Trees in North America. F. H. Knowlton (Science xxi. 24, 25).

The author traces the former existence of the genus *Artocarpus* through the North American continent to Greenland, in cretaceous and tertiary times, as evidenced by remains which are manifestly to be referred to this genus, although classed by different authors at various times under the genera *Myrica* and *Aralia*.

A. H.

Characeæ of America. T. F. Allen (Part II. Fascicle 1, large 8vo., p. 8, 14 plates; published by the author, 10 E. 36th St., New York).

The first part of Dr. Allen's work on our Characeæ was published several years ago. It deals with the morphology, life his-